

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re:	Dale C. Flanders et al.	Patent Application
Serial No:	Not yet assigned	Confirmation No:
Filed:		Group: Not yet assigned
For:	Optical System Production System	Examiner: Not yet assigned

Date: 4-15-04 Express Mail Label No. EV 413603306 US

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).
- ☐ under 37 CFR 1.97(c) together with either:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, and
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)
- ☐ under 37 CFR 1.97(i):
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.
(Filed after payment of issue fee)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in ' 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☐ Copies of the cited references are enclosed except US patent references.
- ☒ References cited were entered in prior application, U.S. Application No. 09/645,827, to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references, except for EP 1115016A1, a copy of which is enclosed.]
- ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
- ☐ The "concise explanation" requirement (non-English references) for reference(s) [] under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
- ☐ the explanation provided in the Specification.
- ☐ submission of the enclosed International Search Report.
- ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
- ☐ the enclosed English language abstract.

☐ Applicant requests that the following non-published pending applications be considered:

Examiner's
Initials

_____ U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []

_____ U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []

_____ U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []

Examiner

Date

- ☐ A copy of each above-cited application, including the current claims, is enclosed.
- ☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

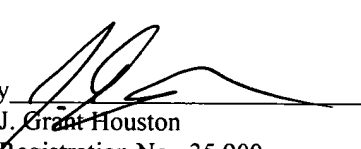
It is requested that the information disclosed herein be made of record in this application.

Method of payment:

- ☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.
- ☐ Please charge Deposit Account 502 233 in the amount of \$[]. A copy of this Statement is enclosed.
- ☐ Please charge any deficiency in fees and credit any overpayment to Deposit Account 502 233.
- ☒ No fee is required.

Respectfully submitted,

By


J. Grant Houston
Registration No. 35,900
Telephone: 978-262-0049
Facsimile: 978-262-0035

Dated:



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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Sheet 1 of 4

Application Number	Div. of 09/645,827
Filing Date	
First Named Inventor	Dale C. Flanders
Art Unit	
Examiner Name	
Attorney Docket Number	1000.06 Div

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 4,528,747	07-16-1985	Hoffman et al.	
		US- 4,702,556	10-27-1987	Ishii et al.	
		US- 4,773,727	09-27-1988	LePivert et al.	
		US- 4,778,241	10-18-1988	Haltenorth	
		US- 5,351,330	09-27-1994	Jongewaard	
		US- 5,570,444	10-29-1996	Janssen et al.	
		US- 5,600,749	02-04-1997	Lee et al.	
		US- 5,745,624	04-28-1988	Chan et al.	
		US- 5,870,518	02-09-1999	Haake et al.	
		US- 6,053,640	04-25-2000	Miyokawa et al.	
		US- 6,074,103	06-13-2000	Hargreaves et al.	
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FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)			
		WO 91/06022	05-02-1991		
		EP 0 647 091	04-05-1995		
		EP 1 093 162 A1	04-18-2001		
		FR 2 690 996	11-12-1993		
		GB 2 296 100	06-19-1996		
		WO 98/58287	12-23-1998		

Examiner Signature		Date Considered	
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Sheet	2	of	4
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U. S. PATENT DOCUMENTS

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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
		GB 2 229 856	10-03-1990			
		EP1115016 A1	11-07-2001			

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		Filing Date	
		First Named Inventor	Dale C. Flanders
		Art Unit	
		Examiner Name	
Sheet 3	of 4	Attorney Docket Number	1000.06 Div

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		KNIGHT, J. Douglas et al., "A Two-Axis Micropositioner for Optical Fiber Alignment," Hewlett-Packard Journal, 44 (1993) December, No. 6, Palo Alto, CA.	
		KRAVITZ, S.H. et al., "A Passive Micromachined Device for Alignment of Arrays of Single-mode Fibers for Manufacturable Photonic Packaging," Proceedings of the Lasers and Electro-Optics Society Annual Meeting (Leos), US, New York, vol. Meeting 7, Oct. 31, 1994, pp 226-227.	
		ANDREASCH, Wolfgang et al., "Flexible Automated Assembly of Micro-Optical Elements (Optical SMD), Proc. SPIE, Vol. 2906, pp 162-170, Microrobotics: Components and Applications, Armin Sulzmann: Ed, published 12/1996.	
		ENOCHS, Scott, "A Packaging Technique to Achieve Stable Single-Mode Fiber to Laser Alignment," Proc. SPIE, Vol. 703, pp 42-47, Integration and Packaging of Optoelectronic Devices (1986).	
		MADOU, Mark, "Fundamentals of Microfabrication, Boca Raton, N.Y. pp 312-313.	
		MOHR, J., "Free Space Optical Components and Systems Based on LIGA Technology, 2000 IEEE/LEOA International Conference on Optical MEMS, Kauai, Hawaii, Aug 21-24, 2000 IEEE catalog #00EX30000.	
		OH, Ksawn et al., "Flip-Chip Packaging Using Micromachined Conductive Polyhmer Bumps and Alignment Pedestals for MOEMS," IEEE journal of Selected Topics in Quantum Electronics, Vol. 5, No. 1, January/February 1999, pp. 119-125.	
		ROGNER, A. et al., "LIGA-based Flexible Microstructures for Fiber-Chip Coupling," J. Micromech. Microeng. 1 (1991) pp 167-170.	
		SCUSSAT, M. et al., "An innovative Flexible and Accurate Packaging Technique Suited to Fabricate Low Cost Micro Optoelectronic Modules," Electronic Components and Technology Conference, IR-IOA, DMT, EPFL, 1015 Lausanne, Switzerland (2000).	
		SCUSSAT, Marco et al., "Automated Surface Mounting of Miniature Optical Elements," DMT, EPFL, 1015 Lausanne, Switzerland (1998).	

Examiner Signature		Date Considered	
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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		First Named Inventor	Dale C. Flanders
		Art Unit	
		Examiner Name	
Sheet 4	of 4	Attorney Docket Number	1000.06 Div

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		SHARPE, William N. et al., "Mechanical Properties of LIGA-Deposited Nickel for MEMS Transducers, 1997 International Conference on Solid-State Sensor and Actuators, Chicago, June 16-19, 1997.	
		WURSCH, Alain et al., "An Innovative Micro Optical Elements Assembly Robot Characterized by High Accuracy and Flexibility," Electronic Components Conference 2000, DMT, EPFL, 1015 Lausanne, Switzerland (2000).	
		ZIEGLER, P. et al., "Passive Alignment and Hybrid Integration of Active and Passive Optical Components on a Microoptical LIGA-Bench," Micro Opto Electro Mechanical Systems - MOEMS '99, pp 186-189.	

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